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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/538,455  
Applicant : Yang Xu & Teresa Lechner-Fish  
Filed : March 30, 2000  
TC/A.U. : 3753  
Examiner : A. Michael Chambers

Confirmation No.: 8304

Docket No.: 1787-06001

Customer No.: 23505

Date: July 30, 2003

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Commissioner for Patents  
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Alexandria, VA 22313-1450

TECHNOLOGY CENTER R3700

Sir:

This paper is submitted in response to Examiner's Communication dated May 20, 2003.

**Appendix of Claims**

1. A stream switching system, comprising:
  - a stream switching housing having at least one common stream channel portion with a plurality of input ports and at least one output port;
  - tubing connected to at least one of said output ports,
  - said tubing at least in part being a pre-heat coil suitable to heat a fluid sample traveling through said coil and to act as a flow restrictor for flow restriction of said fluid sample, the extent of said flow restriction sufficient to restrict said sample flow to about 50-70 cc/min.
  
2. The stream switching system of claim 1, further comprising:
  - an insulated housing forming an interior region and encapsulating said stream switching housing in said interior region, said insulated housing stabilizing a temperature of said stream switching housing.

3. The stream switching system of claim 2, further comprising:  
a heater within said interior region.
4. The stream switching system of claim 2, further comprising:  
a plurality of gas flow actuation switches positioned outside of said insulated housing;  
piping connecting said plurality of fluid flow actuation switches to said insulated housing.
5. The stream switching system of claim 4, wherein said fluid flow actuation switches are solenoids.
6. The stream switching system of claim 5, wherein said piping connects said solenoid to said stream switching housing.
7. The stream switching system of claim 3, wherein said fluid flow actuation switches connect to said insulated housing.
8. The stream switching system of claim 3, wherein said fluid flow actuation switches are remote from said insulated housing.
9. A stream switching system, comprising:  
a stream switching housing having a common stream channel portion with a plurality of actuatable input ports and at least one actuatable output port, each of said ports

being actuatable between an open position permitting the flow of fluid through the port, and a closed position not permitting the flow of fluid through the port;

a plurality of fluid flow actuation switches associated with said actuatable ports, said fluid flow actuation switches controlling the placement of said actuatable ports between said open and closed positions, said fluid flow actuation switches requiring an outside impulse to place said actuatable ports in said open position.

10. The stream switching system of claim 9, wherein each of said fluid flow actuation switches corresponds to a single actuatable port of said actuatable input ports and said output ports.

11. The stream switching system of claim 9, wherein said fluid flow actuation switches are solenoids.

12. The stream switching system of claim 9, wherein each of said fluid flow actuation switches connects to a pressurized line of actuation fluid, said activation fluid of sufficient pressure to place said ports in said open position.

13. A stream switching system, comprising:

a sample point location;

a stream switching portion;

tubing connecting said sample point location to said stream switching system portion;

one or more membrane or cartridge filters connected to said tubing and located proximate the sample point and between said sample point location and said stream switching portion.

14. The stream switching system of claim 13, wherein said membrane or cartridge filters are within 10 feet of said sample point.

15. The stream switching system of claim 13, wherein said membrane or cartridge filters are within 3 feet of said sample point.

16. The stream system of claim 13, further comprising:  
a pressure regulation device proximate said sample point.

17. The stream switching system of claim 16, wherein said pressure regulation device is upstream said membrane or cartridge filters.

20. The stream switching system of claim 1, wherein there are more input ports than output ports.

21. The stream switching system of claim 1, further comprising at least one sample shut off switch connected to a downstream end of said tubing.

23. The stream switching system of claim 21, wherein said sample shut off switch includes a bleed port.

24. The stream switching system of claim 1, wherein each of input ports and output ports are individually actuatable.

25. A stream switching system, comprising:

a housing with entrance holes and exit holes;

means for selecting which of a plurality of gas samples enter said housing;

means for heating said gas samples after said gas samples have entered said housing.

26. A stream switching system, comprising:

a housing forming an interior flow path for gas samples, said flow path connecting to the exterior of said housing via a first number of input ports and a second number of output ports, wherein said number of input ports is greater than said number of output ports; and

piping connected to at least one of said output ports, said piping heating said gas samples to about a predetermined temperature.

27. The stream switching system of claim 26, wherein said housing further forms a sample shut off channel with an external bleed port, and further wherein said piping is upstream of said sample shut off channel.

28. A stream switching system, comprising:

a stream switching housing having at least one common stream channel portion with a plurality of input ports and at least one output port;

tubing connected at least one of said output ports;  
insulation surrounding said stream switching housing and said tubing;  
a heater to warm said stream switching housing and said tubing to a predetermined temperature;

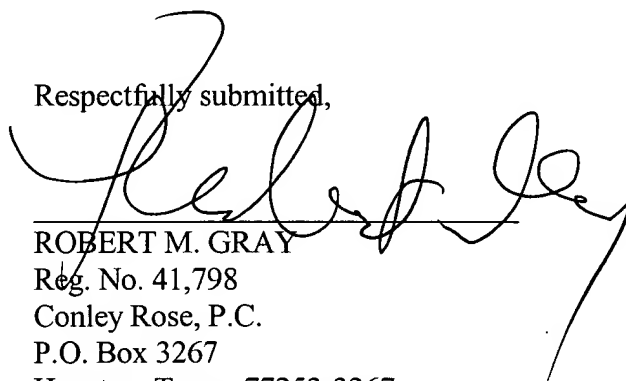
said tubing at least in part being a pre-heat coil suitable to heat a fluid sample having a liquid portion and to act as a flow restrictor for flow restriction of said fluid sample such that said fluid sample is heated to said predetermined temperature.

29. The stream switching system of claim 28, wherein said predetermined temperature is eighty degrees Fahrenheit.

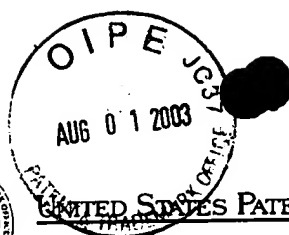
30. The stream switching system of claim 28, further comprising:

a gas chromatograph attached to said output port, wherein said gas chromatograph is maintained at a second predetermined temperature and said predetermined temperature for said fluid sample is the same as said second predetermined temperature.

Respectfully submitted,



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CHAMBERS, A MICHAEL

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Please find below and/or attached an Office communication concerning this application or proceeding.



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EXAMINER
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Chambers

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Communication From the Examiner

An Appeal of the final rejection mailed June 4, 2002, was filed by appellants on September 23, 2002 and an Examiner's Answer was mailed December 17, 2002. In view of the order from the BPAI returning Undocketed Appeal to Examiner mailed April 14, 2003, appellants are asked to provide a copy of an appendix of claims (claims 1-17, 20-21 and 23-30) on Appeal.

Further, the informational disclosure document filed November 20, 2000, has been considered and an initialed copy is attached.

A. Michael Chambers  
Primary Examiner  
Art Unit: 3753



